Central Manchester University Hospitals NHS
NHS Foundation Trust

Directorate of Laboratory Medicine

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Cytology Department

Non gynaecological cytology service

User Manual – January 2013

CPA
Accredited Medical Laboratory
Reference No: 0513

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About us

The cytology department of Central Manchester University Hospitals NHS Foundation Trust (CMFT) is one the largest unit of its kind in the country providing cervical screening using the SurePath Liquid Based Cytology System and a wide variety of non-gynaecological cytology and synovial fluid analyses services. Please see the Cervical Cytology and Synovial Fluid User Manuals for more information on those services.

Our non gynaecological cytology services include fine needle aspiration (FNA) as well as exfoliative cytology. We also provide a non-gynaecological service to The Christie Hospital NHS Foundation Trust. As of January 1st 2013, our services have been expanded to incorporate Trafford General Hospital which is now part of CMFT.

The department is housed in a new building with state-of-the-art facilities and is affiliated to the North West Cytology Training Centre, which is situated on the ground floor of Clinical Sciences Building 2.

The department is fully CPA accredited. We are fully committed to maintaining this accreditation by an established quality management system and standards determined by the Royal College of Pathologists together, with scheduled clinical and quality audits and national guidelines.

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Hours of opening

The department is open from 08:00 hrs – 17:00 hrs, Monday to Friday (except bank holidays)
Non-gynaecological samples should be received in the department by 16:45 hrs.

Services available at CMFT Non-gynaecological Cytology

1. Exfoliative cytology
2. Biomedical scientist (BMS) assistance at radiological and ad hoc FNA clinics
3. BMS assistance and on site specimen adequacy assessment at dedicated Head and Neck clinics, including thyroid – usually Tuesday mornings and alternate Thursday afternoons
4. On site consultant led provisional diagnoses/adequacy assessment of endobronchial ultrasound (EBUS) FNA samples.

Services provided to the Christie Hospital

- Non-gynaecological Cytology
  1. Exfoliative cytology
  2. Fine needle aspiration cytology, including BMS assistance in slide preparation and on site specimen adequacy assessment.

Find or contact us at CMFT

The cytology department is located on the first floor of Clinical Sciences Building 2. All visitors should access the department via the reception area of Clinical Sciences Building 1. **Please also contact us if you have any complaints or service improvement suggestions.**

Address

Cytology Department
First Floor
Clinical Sciences Building 2
Manchester Royal Infirmary
Oxford Road
Manchester
M13 9WL

Email: cyto.pathology@cmft.nhs.uk

Telephone Enquiries

	Telephone	Fax
General	**0161 276 5115/8817**	**0161 276 5113**
Non-gynaecological results	**0161 276 5115/5116/6727**	
Booking an FNA (at CMFT)	**0161 276 5111/8817 or Bleep 07659545074**	
Advice on non-gynaecological sample collection	**0161 276 5111/5115**	

Name	Position	Telephone	E - mail
Dr M Desai	Head of Service & Director of the North West Cytology Training Centre	0161 276 5099	mina.desai@cmft.nhs.uk
Dr D N Rana	Consultant Cytopathologist & Clinical Lead for Non-gynaecological Cytology,	0161 276 5108	durgesh.rana@cmft.nhs.uk
Dr M Holbrook	Consultant Cytopathologist	0161 276 6475	miles.holbrook@cmft.nhs.uk
Dr M Perera	Consultant Cytopathologist	0161 276 5109	dona.perera@cmft.nhs.uk
Dr S Thiryayi	Consultant Histo/cytopathologist	0161 701 7570	sakinah.thiryayi@cmft.nhs.uk
Annette Lawton	Medical Secretary	0161 276 5115	annette.lawton@cmft.nhs.uk
Nicola Wood	Medical Secretary	0161 276 5116	nicola.wood@cmft.nhs.uk
Helen Wilson	Medical Secretary	0161 276 6727	helen.wilson2@cmft.nhs.uk
Jennifer Bradburn	Medical and North West Cytology Training Centre Secretary	0161 276 8804	jennifer.bradburn@cmft.nhs.uk
Adanna Ehirim	Chief Biomedical Scientist	0161 276 5119	adanna.ehirim@cmft.nhs.uk
Daniel Smith	Cellular Pathology Manager	0161 276 6138	daniel.smith@cmft.nhs.uk

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Find or contact us at the Christie Hospital

We are located in the Bereavement Suite at Christie Hospital and are available between the hours of 09:00 hrs to 12:30 hrs, Monday to Friday (except bank holidays). One staff member is available for FNA services and answer queries relating to non-gynaecological cytology only.

Telephone Enquiries

	Telephone	
General	**0161 446 3643**	
Non-gynaecological results	**See CMFT number above**	**No results are issued at Christie**
Booking an FNA (at Christie)	**0161 446 3643**	
Advice on non-gynaecological sample collection	**0161 446 3643**	

E mail cytology@christie.nhs.uk

Specimen acceptance policy

Each specimen must be accompanied by a completed and matching sample request form. Please ensure all fields of request forms are completed. See page 14 for instructions on filling out the non-gynaecological request form. A blank copy of same is available for download on page 15. Alternatively, we can supply bulk forms on request.

All specimen containers must be clearly labelled with:

1. Patient's full name
2. Date of Birth
3. NHS &/or Hospital number
4. Specimen type (non-gynaecological)
5. Clinical details

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Turn around time

- Non-gynaecological cytology reports are printed and sent out daily, addressed to the consultant or GP who requested the test.
- Reports of any malignancy are faxed.
- To discuss the cytology report with the Consultant Cytopathologist, contact the department between 08:00 hrs and 17:00 hrs on 0161 276 5115/5116

Urgent specimens

- Urgent specimens will be reported at least verbally within three (3) working days of receipt by the laboratory. Please provide a contact details on request card.
- This may only be a provisional report pending further ancillary tests.
- **It is recommended that the requesting clinician discuss such specimens with the Cytopathologist between 08:00 hrs and 17:00 hrs on 0161 276 5115/5116. In all cases, the clinician should telephone the laboratory in advance and provide a contact name and phone or bleep number**.

Routine specimens

- Routine specimens will be reported within five (5) working days of receipt. This may vary depending on the specimen type and if additional clinical information or ancillary tests are required e.g. immunocytochemistry

Current practice and research activity

- We currently use a mixture of direct spreads, cytospins and SurePath® Liquid Based Cytology (LBC) technology in our sample preparation.
- Our research activities include:
    1. Penile brush cytology
    2. Oro-pharyngeal brush cytology
    3. High risk HPV testing in head and neck cancers
    4. Molecular testing in selected non small cell lung cancer cases
    5. Dual antibody staining for immunocytochemistry.

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Non-gynaecological cytology sample collection

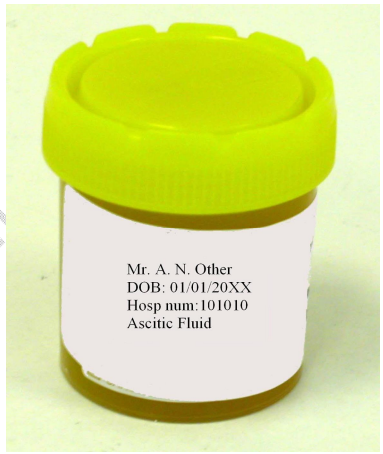
Serous fluid samples including peritoneal washings

Please see specimen acceptance policy on page 4

Body cavity fluids (pleural/ascitic/peritoneal fluid/peritoneal washing/pericardial)

- 50-100mls fluid should be sent in a clean dry container with screw cap (**Note: no formalin or alcohol should be added to the sample as both of these can cause interference with adherence to slide and quality of staining**)
- The fluid should be submitted as soon as possible to minimise cell deterioration, so that cell preservation is not compromised.

If there is a delay in delivering the sample to the laboratory, the sample should be kept in a fridge at 4°C (Note: the sample should NOT be frozen)



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Cyst fluid

- Cyst fluid should be put into a clean dry container with screw cap.
- The sample should be sent as soon as possible in order to minimise cell deterioration.

However, if there is a delay in the sample being delivered to the laboratory, it should be kept in a fridge at 4°C (Note: the sample should NOT be frozen)

Respiratory tract samples

Please see specimen acceptance policy on page 4

Transbronchial FNA – see FNA section

Endobronchial ultrasound FNA (EBUS FNA)

We are please to announce that we started a consultant led EBUS FNA service in October 2012. A Consultant Cytopathologist is on site to provide preliminary diagnoses with technical assistance provided by a biomedical scientist.
This has proved extremely successful in terms of preliminary diagnosis, specimen triage and reflux molecular testing.

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Sputum

- Best results are achieved with freshly obtained sputa following chest physiotherapy, with an early morning sputum before the patient has eaten
- Contamination with large amounts of saliva or food leads to inadequate specimens
- Multiple specimens (usually x 3) may be necessary, but these should be sent on 3 separate days, not all taken at the same time
- Send in clean, dry container with screw cap
- If examination for eosinophils is required please indicate this on the request form.

Bronchial aspirates, lavage, wash, trap and bronchoalveolar lavage samples

- Fresh specimen should be placed in a clean dry container and an equal volume of CytoRich® Red preservative fluid immediately added for fixation.
- The time of this fixation should be indicated on the label of the container.
- If CytoRich® Red preservative fluid is not available, fresh specimen should be placed in clean dry container. Delay in receipt unfixed samples can lead to deterioration of specimen.
- If differential cell count is required, **DO NOT USE CytoRich® Red** preservative fluid. Please send the sample unfixed.
- DO NOT USE FORMALIN FIXATIVE.

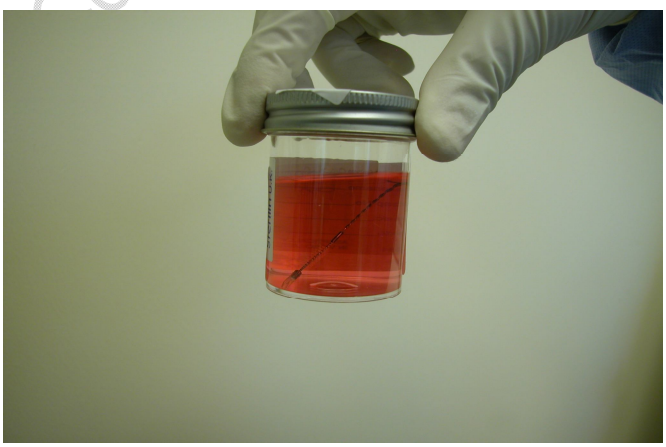
Fresh Specimen

Specimen with an equal volume of CytoRich® Red preservative fluid

- Please note: When the stock of CytoRich® Red preservative fluid is running low or close to its expiry date, please contact the cytology department on 276 5111/5116 for replacement.

Bronchial brush samples

- Place brush into clean screw capped container with CytoRich® Red preservative fluid. Ensure brush is fully immersed in preservative.
- The time of this fixation should be indicated on the label of the container.
- DO NOT USE FORMALIN FIXATIVE
- Please note: When the stock of CytoRich® Red preservative fluid is running low or close to its expiry date, please contact the cytology department on 276 5111/5116 for replacement of stock.



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Urinary tract samples

Urine (including voided, catheter, urethral washings and ileal conduit samples)

- Collect urine in a clean, dry container with a screw cap. A 20ml to 50ml container is suitable.
- An adequate urine sample is the second voided of the day, preferably mid morning or random
- **Please note: The first sample voided in the morning is unsuitable for cytological analysis.**
- Urine can be collected from catheters as well as washings from the bladder or upper urinary tract. The request form must state the method of collection.
- If there is a delay in delivering the sample to the laboratory, the urine sample should be kept in a fridge at 4ºC.

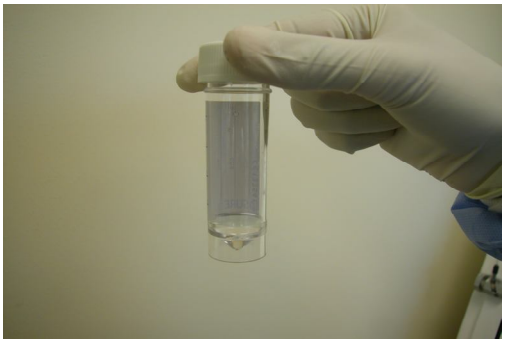
Industrial Urine samples

- The preferred method for the collection of industrial urine samples is the same as above (preferably in 25ml Universal tube). **Please contact the cytology department in advance when sending large number of samples.**

Cerebrospinal fluid (CSF)

Please see specimen acceptance policy on page 4

- A clean, dry container with screw cap should be used.
- CSF samples are liable to degenerate rapidly and as such must be prepared immediately. **Please contact the laboratory to inform staff of imminent arrival of a CSF sample, and leave a bleep or contact number.**
- **Latest processing time for samples is 15.30 hrs Mon-Fri. CSF samples must be received at least half an hour before this time.**
- If out of hours sampling is unavoidable, storing the sample in refrigerator at 4°C may help preserve cells for up to 24 hours.



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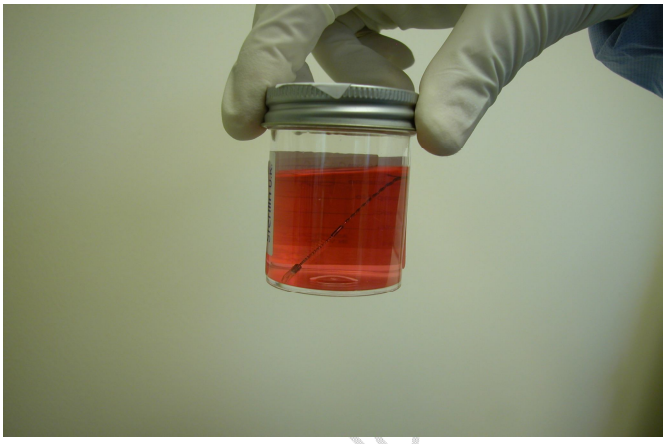
Gastrointestinal Tract Brushings (including bile duct)

- Place brush into clean screw capped container with CytoRich® Red preservative fluid. Ensure brush is fully immersed in preservative.
- The time of this fixation should be indicated on the label of the container.
- DO NOT USE FORMALIN FIXATIVE
- Please note: When the stock of CytoRich® Red preservative fluid is running low or close to its expiry date, please contact the cytology department on 276 5111/5116 for replacement of stock.



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Fine needle aspiration cytology samples

We provide biomedical scientist (BMS) assistance at FNA clinics to prepare direct spreads and needle rinses. **Please note the BMS staff do not perform the aspirations.**
We do provide BMS on site rapid specimen adequacy assessment at Head and Neck clinics, including thyroid, every Tuesday mornings and alternate Thursday afternoons.
The staff in the laboratory will be pleased to advise and assist on any aspect of sample collection, please contact the department at:

- Cytology Department, Monday to Friday between 08:00 hrs and 17:00 hrs on 0161 276 5111/ 5115/5116. We may also be contacted by bleep on 07659 545074
- Please note calls must be received by 16:15 hrs for FNA attendance.
- In the absence of Cytology staff assistance, a guide to performing aspirations and making spreads is given on pages 12 and 13 respectively**.**
- **Christie hospital – FNA clinics** Monday to Friday 09:00 hrs to 12:30 hrs on **0161 446 3643**

It is recommended that the support of a BMS be utilised for optimal sample preparation

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Use of fine needle aspiration

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- Patients presenting with palpable lesions in clinics (ENT, maxillofacial), outpatients and wards.
- Deep seated lesions sampled by radiologically guided techniques (Ultra Sound, CT)
- Endoscopic and transbronchial guided specimens

For all Radiology, Endoscopy (EUS FNAs), Respiratory Medicine (EBUS FNAs) and Head & Neck (ENT and Maxillofacial) departments please book with the Cytology Department in advance.

Equipment required for a fine needle aspiration

- Standard disposable 21-25 gauge needles. A 25 gauge (orange) needle is suitable for most lesions.
- Disposable 5-10 ml plastic syringe.
- Clean container with tight lid (preferably universal) containing CytoRich® Red preservative fluid
- Standard microscopic glass slides onto which aspirate is to be smeared

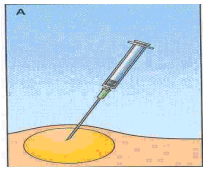
Completion of request form and sample container

Please see specimen acceptance policy on page 4

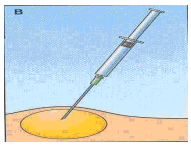
Part A - How to perform a fine needle aspiration

- Disinfect skin using pre-packed alcohol swabs.
- Before insertion of needle wipe away any excess ultrasound jelly with tissue paper (if U/S guided)
- Perform the aspiration according to the instructions A - G

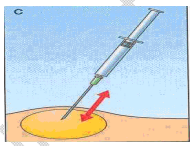
A Position needle within target tissue



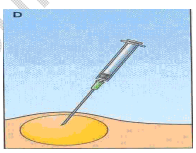
B Pull plunger to apply negative pressure



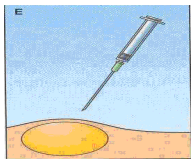
C Move needle back and forth inside target



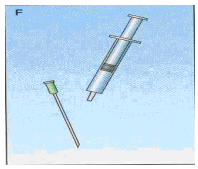
D Release negative pressure while needle remains in target tissue



E Withdraw needle



F Detach needle and draw air into syringe



G Push a drop of sample onto microscopy slide

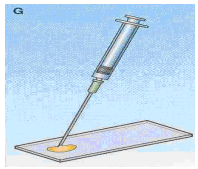


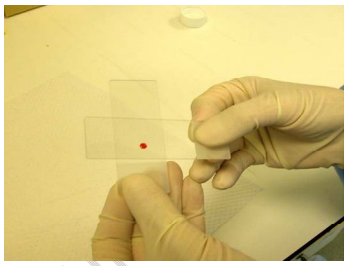
Figure taken from Fine Needle Aspiration. (2005), 4th Edition. S. Oreell; G.F. Sterrett; and D. Whittaker. Elsevier Churchill Livingstone.

Part B - Making spreads from fine needle aspirations

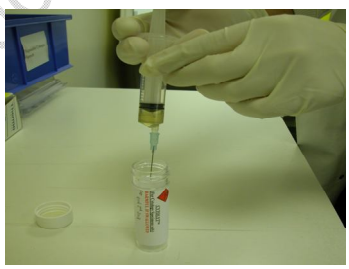
The ideal FNA sample is prepared as follows:

- Even monolayer spreads onto glass slides for **air-dried** 'direct smears'
-
- Needle to be rinsed in CytoRich® Red preservative fluid (if available) or sterile saline
- 2 passes are recommended for each case
- **If Tuberculosis is suspected, please also send an aspirate to microbiology in a sterile container.**

Step 1: Having expelled a small drop of the aspirate onto a glass slide (step G above), place a clean slide (spreader) above the drop and spread gently but swiftly. Leave to air dry.



Step 2: Rinse the remaining material from the needle into the CytoRich® Red preservative fluid by repeated aspiration and expelling of the said CytoRich® Red preservative fluid



Step 3: Label container containing CytoRich® Red preservative fluid according to specimen acceptance policy (page 4) and use a pencil to label slide.

Step 4: Complete request form (see page 13), package sample and send to Cytology Department, Clinical Sciences Building 2.

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CMFT off site non-gynaecological cytology request form

PATIENT'S DETAILS:(AFFIX STICKER HERE)

Surname

Forename

Address

Sex | **DOB** | **Private/ NHS**

Hospital/NHS number

Ward/Dept

SPECIMEN DETAILS: (PLEASE TICK)

URINE
- Voided [ ]
- Catheterised [ ]
- Post instrumentation [ ]
- Ileal conduit [ ]
- Ureteric [ ]
- Urethral washing [ ]

BODY CAVITY
- Pleural Fluid [ ]
- Pericardial Fluid [ ]
- Ascitic Fluid [ ]
- Peritoneal Fluid [ ]
- Peritoneal Washing [ ]

CSF [ ]

Cyst Fluid [ ]
Please state site

OTHER
Please state site

BRONCHIAL
- Brush [ ]
- Lavage/Wash [ ]
- Trap/Aspirate [ ]
- Bronchoalveolar Lavage [ ]

Please state site and side of lobe.

FNA TECHNIQUE
- Ultrasound Guided [ ]
- CT Guided [ ]
- Transbronchial [ ]

FNA SITE & SIDE (Lt/Rt):

Consultant to whom the report is to be sent (please print):

Copy report to/ Department (please print):

Consultant's department where report is to be sent:

Date taken:

Bleep/contact number (for requesting consultant):

Time taken:

CLINICAL INFORMATION

Clinical History ……..

……..

Significant Findings……

……..

Diagnosis……..

Previous Cytology ……...

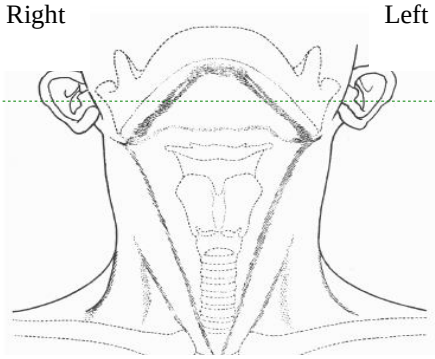
Previous Histology ……..

Previous Treatment
Chemo/radiotherapy ……..

High Risk **Yes** ☐ **No** ☐

HEAD AND NECK FNAs
(Please indicate and label site on diagram below)

Right Left



Aspirating Clinician (PLEASE PRINT) ……..**Contact no./bleep**…….

Signature and date……..

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Comment [Aae1]: Please state clearly the site aspirated or topography of sample

Comment [Aae2]: This is the treating consultant to whom the report must be sent.

Comment [Aae3]: Department of treating consultant.

Comment [Aae4]: It is essential that a complete history is given such as previous diagnoses and/or duration of symptoms etc.

Comment [Aae5]: Radiological findings &/or clinical impression are extremely helpful to the cytologists.

Comment [Aae6]: Previous &/or current treatment regimes help avoid under and over diagnosis

Comment [Aae7]: Name and contact number of the clinician taking the sample is essential.

N.B. Incomplete forms will result in delay in the reporting of the specimen

Visit our website: www.cmft.nhs.uk

CMFT off site non-gynaecological cytology request form

PATIENT'S DETAILS:(AFFIX STICKER HERE)

Surname	
Forename	
Address	
Sex	**DOB** / **Private/ NHS**
Hospital/NHS number	
Ward/Dept	

SPECIMEN DETAILS: (PLEASE TICK)

URINE
- Voided [ ]
- Catheterised [ ]
- Post instrumentation [ ]
- Ileal conduit [ ]
- Ureteric [ ]
- Urethral washing [ ]

BODY CAVITY
- Pleural Fluid [ ]
- Pericardial Fluid [ ]
- Ascitic Fluid [ ]
- Peritoneal Fluid [ ]
- Peritoneal Washing [ ]

CSF [ ]

Cyst Fluid [ ]
Please state site

OTHER
Please state site

BRONCHIAL
- Brush [ ]
- Lavage/Wash [ ]
- Trap/Aspirate [ ]
- Bronchoalveolar Lavage [ ]

Please state site and side of lobe.

FNA TECHNIQUE
- Ultrasound Guided [ ]
- CT Guided [ ]
- Transbronchial [ ]

FNA SITE & SIDE (Lt/Rt):

Consultant to whom the report is to be sent (please print):

Copy report to/ Department (please print):

Consultant's department where report is to be sent:

Date taken:

Bleep/contact number (for requesting consultant):

Time taken:

CLINICAL INFORMATION

Clinical History ……..

……..

Significant Findings……

……..

Diagnosis……..

Previous Cytology ……...

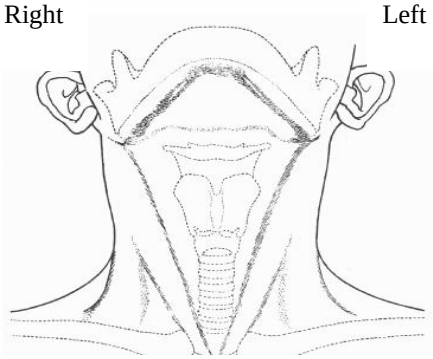
Previous Histology ……..

Previous Treatment
Chemo/radiotherapy ……..

High Risk Yes ☐ **No** ☐

HEAD AND NECK FNAs
(Please indicate and label site on diagram below)

Right Left



Aspirating Clinician (PLEASE PRINT) ……..Contact no./bleep…….

Signature and date……..

N.B. Incomplete forms will result in delay in the reporting of the specimen

Visit our website: www.cmft.nhs.uk

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